

200200152

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Unibersity of Idaho

MULTERS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED. OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF IWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, A CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN LICING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY TION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (I) SHALL BE SOLD BY VARIETY NAME ONLY AS A STIFFED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE

WHEAT, COMMON

'Gary'

In Testimony Marcest, I have hereunto set my hand and caused the seal of the Plant Pariety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of September, in the year two thousand two.

Allert

Bomphe

Commissioner Plant Variety Protection Office Agricultural Marketing Service Judgeman

Associate Dean/Director 5/7/02 A7-470 (2-99) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470	(6-98) which is obsolete. (See reverse for instructions and information collection burden statement)
CAPACITY OR TITLE DATE	CAPACITY OR TITLE DATE
Richard C. Heimsch	·
NAME (Flesse print or type)	NAME (Please print or type)
Owner(s) is(are) informed that false representation herein can jeopardize protection and result in pe	SIGNATURE OF OWNER
The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant vand is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.	ariety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42,
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained.	on and will be replenished upon request in accordance with such regulations as may be applicable, or ad for the duration of the certificate.
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)	REFERENCE NUMBER. (Please use space indicated on reverse.)
TES A NO	IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED
PROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OF OTHER COUNTRIES?	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED	(If additional explanation is necessary, please use the space indicated on the reverse.)
9. States (Mail to the Plant Variety Protection Office)	IF YES, SPECIFY THE X FOUNDATION X REGISTERED X CERTIFIED
 Youcher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be depositied and maintained in an approved public repository) 	21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? YES NO
e. Dehibit E. Statement of the Basis of the Owner's Ownership	
d. Shibit D. Additional Description of the Variety (Optional)	VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED
b.	20. DOES THE OWNER SPECIFY THAT SEED OF THIS X YES NO
a. 🙀 Exhibit A. Origin and Breeding History of the Variety	X YES (If "yes", answer items 20 NO (If "no," go to item 22)
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)	19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act)
	ouza@uidaho.edu wheat
200 207 44.60	E-MAIL 14. CROP KIND (Common Name)
	DATE 7/17/02
	CERTIFICATION FEE:
Aberdeen, ID 83210	DATE 5/10/02
University of Idaho PO Box 870	
Edward Souza	\$ 2.705.00
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION	(First person listed will receive all papers) Filing AND EXAMINATION FEES:
ORGANIZATION (corporation, partnership, association, etc.) 8. If INCORPORT STATE OF	ORATED, GIVE 9. DATE OF INCORPORATION ORATED, GIVE 19. DATE OF INCORPORATION ORATED, GIVE 19. DATE OF INCORPORATION
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF 8. IF INCORE	208-397-4311 FILING DATE
33044-2337	6. FAX (Include area code)
University of Idaho Moscow, ID 83844-2337	208-885-7173 20 0 2 0 0 2 0 0 1 5 2
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Idaho Agricultural Experiment Station	5. TELEPHONE (include area code) FDRIDERICIAL USE ONLY
University of Idaho	ID0550 Gary
1. NAME OF OWNER	2. TEMPORARY DESIGNATION OR S. VARIETY NAME EXPERIMENTAL NAME
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFIC (Instructions and Information collection burden statement on reverse)	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).
LIS, DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE APPLICATION FOR BLANT VARIETY PROTECTION OFFICE	The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552e) the Paperwork Reduction Act (PRA) of 1995. Application is required in order to determine if a plant variety protection certificate is to be lessed.
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552e)

Plant Variety Protection Application: Gary Hard White Winter Wheat

Exhibit A. Origin and Breeding History of the Variety

Gary is a selection from a first backcross made in 1987, A879W, with the parentage 'Manning'*2 / 'Survivor'. Plants of the BC1 generation were harvested in bulk and planted in the field at Aberdeen 1988. Subsequent selection for snow mold (Typhula spp.) among red seeded selections of the BC₁F₂ derived population indicated that the population had good agronomic characteristics and disease resistance. When interest in hard white wheat was renewed in the PNW, we reevaluated hard red winter populations that had produced hard white segregants, of which A879W was one. The BC₁F₃ seed harvested in bulk from the plot planted in 1988 was planted at Aberdeen in 1991. Heads were selected from the population in 1992 and planted to BC₁F_{3:4} head rows in the fall of 1993. One of the head rows, designated A879W-5, was selected based on resistance to common bunt (causal organism Tilletia tritici (Bjerk) Wint.) and advanced to yield testing in 1994. A879W-5 was evaluated in yield trials from 1994 to 1998 and was advanced to the Western Regional Nursery in 1998 with the line number IDO550. During the seven years of yield testing since 1994, Gary has been uniform and true-to-type¹. Pure line BC₁F_{3:9} heads of IDO550 were selected in 1999 and evaluated for uniformity and trueness-totype in 2000. Approximately 100 head row BC₁F_{3:9} selections harvested in 2000 were composited to form breeder seed of Gary.

^{1.} Our yield trials are planted each year from the previous year's seed generation. Therefore,

Gary has been true-to-type and uniform, without variants for seven generations.

— Uniform and Stable

Per phase Conversation W/ Ed Souza MAH 6/11/2002

Plant Variety Protection Application: Gary Hard White Winter Wheat

Exhibit B. Statement of Distinctness

Gary is most similar in appearance to the cultivar Survivor, hard red winter wheat. It is similar in height head type and chaff color, as well as its spectrum of disease resistances.

Survivor is one of the parents Gary. The two cultivars can be definitively distinguished based on seed color; Survivor is red seeded and Gary is uniformly white seeded and has been so through 8 generations of yield testing.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information eclication is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, accusal orientation, and marital or family states. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of program information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of programs information (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction of the USDA's TARGET Construction (Braille, large print, audiotage, etc.) should contact the USDA's TARGET Construction (Braille, large print, audiotage, etc.) should be used to be used

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE **BELTSVILLE, MD 20705**

EXHIBIT ((Wheat)

OBJECTIVE DESCRIPTION OF VARIETY

	·	WHEAT (Trit	icum spp.)	•	•
NAME OF APPLICANT(S)		· · · · · · · · · · · · · · · · · · ·		FOR OFFICIAL USE ONLY	
University of	f Idaho	•		PVPO NUMBER	
ADDRESS (Street and Na. or Ri	D No., City, State, and Zip Code)		***************************************	200200152	
Idaho Agricu University of Moscow, ID {		tation		VARIETY NAME TEMPORARY OR EXPERIMENTAL DESIGNATION	
Place a zero in the first be a minimum of 100 plants. may be used to determine	ox (c.g. 0 9 9 or 0 9) wh	en number is either 99 or less o ermined from varieties entered ed:	or 9 or less respectively. in the same trial. Royal	al character of this variety in the boxes below. Data for quantitative plant characters should be bas Horticultural Society or any recognized color stands	ed or
1. KIND:					
1	1=Common	2≖Durum	3=Club	4=Other (SPECIFY):	
2. VERNALIZATI	ION:	<u></u>			
2	1=Spring	2=Winter	3=Other (S	SPECIFY):	
3. COLEOPTILE	ANTHOCYANIN:	·			
1	1=Absent	2=Present			
4. JUVENILE PLA	NT GROWTH: 😴 🗸		· ·		
1	1=Prostrate	2=Semi-erect	3=Erect		
5. PLANT COLOR	t (boot stage):				
. 3	1 = Yellow-Green	2 = Green	3 = Blue-Gr	reen	
6. FLAG LEAF (b	oot stage):				
2	1 = Erect	2 = Recurved	1	1 = Not Twisted 2 = Twisted	
7. EAR EMERGEN	CE:				
0 3	Number of Days Earl	ier Than <u>Bonnevil</u>	le		*
0 1	Number of Days Late	r Than Manning			* - !

S&T-470-6 (2-90) declared by the Plant Variety Protection Office with WordPerfect 6 (la Renjaces LMGS-470-6 (6-82) which is obsolete

8. ANTHER COLOR:	·	
$1 = Y_0$	ellow 2 = Purple	200200152
9. PLANT HEIGHT (from so	il to top of head, excluding awns);
0 5 cm Ta	aller Than_Manning	•
0 8 cm Sh	orter Than Bonneville	<u> </u>
		• Relative to a PVPO-Approved Commercial Variety Grown in the Same T
10. STEM:		
A. ANTHOCYANIN		D. INTERNODE (SPECIFY NUMBER)
1 l= Absent	2=Present	1 1= Hollow 2=Semi-solid 3=Solid
B. WAXY BLOOM		E. PEDUNCLE
2 1=Absent	2=Present	2 1=Absent 2=Present
C. HAIRINESS (last i	nternode of rachis)	cm Length
1 I=Absent	2=Present	
11. HEAD (at Maturity):		
A. DENSITY		C. CURVATURE
1=Lax 3= Dense	2=Middense	2 1 = Erect 2 = Inclined 3 = Recurved
B. SHAPE		D. AWNEDNESS
1 = Tapering 3 = Clavate	2= Strap 4 = Other (SPECIFY);	1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned
	·	
12. GLUMES (at Maturity):		
A. COLOR		C. BEAK
1 = White	2 = Tan	3 1 = Obtuse 2 = Acute 3 = Acuminate
3 = Other (SPEC	CIFY) :	- -
B. SHOULDER	•	D. LENGTH
3 = Rounded	2 = Oblique 4 = Square 6 = Apiculate	1 = Short 2 = Medium (ca. 7mm) (ca. 8mm) 3 = Long (ca. 9mm)

12.	GLUME	S (at Maturity) Contin	ued:			· · · · · · · · · · · · · · · · · · ·	· 0 A	A B A A A	
		HŢDIY		_		•	. 	02001	52
	1	1 = Narrow (ca. 3m 3 = Wide (ca. 4mm)	m) 2 = Med	ium (ca. 3.5m	m)	.			
13.	SEED:						•	· ·	
	A. SI	HAPE		•	C. B	RUSH		•	
	3:	1 = Ovate 2 =	Oval 3	= Elliptical	1	1=Short	·	2=Medium	3=Long
					1	1 = Not Colla	red	2 = Collared	
	B. CF	IEEK			D. CI	REASE	· · · · · · · · · · · · · · · · · · ·		
	2	1=Rounded 2=A	angu <u>l</u> ar		3	1 = Width 60 2 = Width 80 3 = Width Ne	% or less o	f Kernel	
	i	· ·			1	1 = Depth 209 2 = Depth 359 3 = Depth 509	% or less of	Kernel	
	E. Colo	or .			G. PH	ENOL REACT	TION (see	instructions):	
		1=White 2= A 4= OTHER (Specify)		Red	1	1 = Ivory 3 = Light Brows 5 = Black	wn	2 = Fawn 4 = Dark Brown	i
	F. TEX	TURE		•					
	1	1=Hard 2=Se	oft						
14. D	ISEASE:	.(0=Not Tested;	1=Susceptible	; 2=Resist	ant; 3	=Intermediate;	4=Tole	rant)	
		PLEAS	SE INDICATE	THE SPECIE	IC RAC	E OR STRAIN	TESTED		
	0	Stem Rust (Puccinia į	graminis L sp. t	ritici)	[3]	Leaf Rust (Pu	ccinia reco	ndita f. sp. tritici)	
	3	Stripe Rust (Puccinia	striiformis)		2	Loose Smut (1	Istilago trit	ici)	
	0	Tan Spot <i>(Pyrenophor</i>	a tritici-repenti	s)	O	Flag Smut <i>(Ur</i>	ocystis agre	opyri)	
	0	Halo Spot <i>(Selenopho</i>	ma donacis)	•	2	Common Bunt	(Tilletia tr	itici or T. laevis)	
	3	Septoria nodorum (Glv	ume Blotch)	•	2	Dwarf Bunt <i>(1</i>	Illetia cont	roversa)	
	0 3	Septoria avenae (Speci	cled Leaf Disea	se)	0	Karnal Bunt <i>(</i>	Tilletia indi	'ca)	
	. 3	Septoria tritici (Specklo	ed Leaf Blotch)	· · .	0	Powdery Milde	w (Erysipi	e graminis f. sp.	tritici)
	0 s	cab (Fusarium spp.)			4	'Snow Molds''			

. 14.	Dise	ase (Continued)	(0=Not Tested;	1=Suscepti	ble• 2:	=Resistant;	2002 3=Intermediate;	
•	•		,		•		OR STRAIN TEST	4=Tolerant)
	2	"Black Point"	(Kernel Smudge)		0	•	Root Rot <i>(Fusariun</i>	
	0	Barley Yellow	Dwarf Virus (BYD	v)	0	Rhizocton	ia Root Rot (Rhizoc	cionia solani)
	0	Soilborne Mos	aic Virus (SBMV)		2	Black Cha	iff (Xanthomonas ca	mpestris pv. translucer
	0	Wheat Yellow	(Spindle Streak) Mo	saic Virus	0	Bacterial l syringae)	Leaf Blight (Pseudoi	monas syringae pv.
	0	Wheat Streak	Mosaic Virus (WSIV	rv)		Other (SP	ECIFY)	· · · · · · · · · · · · · · · · · · ·
ries i		Other (SPECI	FY)	•		Other (SP	ECIFY)	
		Other (SPECI	FY)			Other (SP	ECIFY)	
		Other (SPECI	F Y)			Other (SP	ECIFY)	
15. IN	SECT:	(0=Not Test	ed; 1=Susceptible	e; 2=Resist:	ant; 3	=Intermedia	te; 4=Tolerant)	
			PLEASE	SPECIFY BIO	TYPE (where neede	ď)	
	0	Hessian Fly (M	ayetiola destructor)			Other (SPI	ECIFY)	
	0	Stem Sawfly (C	ephus spp.)			Other (SPI	ECIFY)	
. '	0	Cereal Leaf Bee	tle <i>(Oulema melano</i> j	ra)		Other (SPE	CCIFY)	
	1	Russian Aphid	(Diuraphis noxia			Other (SPE	CCIFY)	
••	0	Greenbug (Schi.	caphis graminum)			Other (SPE	CIFY)	-
····	0	Aphids				Other (SPE	CIFY) ,	
16. AD	DITION	AL INFORMAT	ION ON ANY ITEM	ABOVE, OF	GENE	RAL COMM	ŒNTS	

Plant Variety Protection Application: Gary Hard White Winter Wheat Exhibit D. Additional Description of the Variety

- Table 1. Summary of hard red winter wheat grown in southern Idaho rain-fed trials, 1994 to 2000, 23 environments.
- Table 2. Comparison of hard red winter wheat cultivars for milling and baking quality, in 22 southeastern Idaho environments, 1994 to 2000.
- Table 3. Extension testing hard winter wheats, Idaho, 1999 and 2000.
- Table 4. Milling and baking evaluation of DW hard red winter wheat, Western Regional Nursery, 1997 to 1999.
- Table 5. Summary of Western Regional Stripe Rust Evaluation, 1997 to 1999.
- Table 6. Summary of Western Regional Yield Testing 1997 to 1999.

Table 1. Summary of hard winter wheat cultivars grown in southern Idaho rainfed trials, 1997 to 2000, 14 environments.

						_
	Grain	Test	Spring	Snowmold	Heading	Plant
	yield	weight	stand	survival ¹	date	height
	: pn/ac	nq/#	%	%	Julian	įĒ
Gary	62.3	60.1	91.6	92.4	158	35
Bonneville	56.1 **	62.0 **	6.06	88.5	161 **	* 38
Boundary	61.9	59.6	88.6	90.7	159	*
Eltan	64.7	58.1 **	88.4	84.1 *	161 **	32 **
MQ	61.7	61.2	90.5	89.1	158	31
Manning	60.4	e0.7 **	88.7	86.2	157	33 *
Promontory	63.7	62.0 **	* 4.78	87.1	156 *	34 *
Sprague	59.3	59.8	92.1	89.4	158	31 *
Utah100	62.0	9.09	89.1	87.7	159	36
Weston	57.8 **	61.9 **	87.0 **	82.9 **	155 **	** 68
	1 1 1 1 1 1 1 1 1 1 1 1		•			

*,** Cultivar values are significantly different from Gary. 1. Snowmold survival: average of 6 environments where snowmold significantly reduced spring stands.

Table 2. Comparison of Gary hard white winter to hard red winter wheat cultivars for milling and baking quality, in 14 southeastern Idaho environments, 1998 to 2000.

		: 1							11 100	
			Σ	Mixograph						
	Flour	Flour		Peak		Bake	Loaf	Vol. Prot.	Exterior	Interior
	protein	yield	Time		Toler.	time	volume	corrected	texture	texture
	%	%	min	S	degree	min	lu	m L	0-2	0-5
		·								
Gary	10.3	65.3	3.7	5.9	79.5	3.8	933	226	1.2	1.5
Bonneville	11.5 **	68.2 **	3.2	6.0	76.1 *	3.0 **	\$ 166	944	4	1.5
Boundary	10.8	65.5	3.1	6.0	79.3	3.1 *	940	950	1.5	1.3
DW	10.8	62.9	9.0 0.0	6.2	78.0	3.6	1037 **	1045 *	1.2	1.3
Manning	10.6	65.8	3.2	5.8	79.4	3.2 **	1000 *	1020	1.2	1.3
Promontory	10.6	68.5 **	3.3	6.2	78.2	3.3 **	952	972	1.3	6.1
Utah 100	10.4	65.1	3.3	6.2	78.2	3.2 **	983	1015	1.2	1.2 *
Weston	11.6 **	66.2	1.9 **	7.1 **	68.9 **	1.8 **	1053 **	666	1.5	1.5

*, ** Cultivar is significantly different from Gary for the paired trait at the 95% and 99% confidence interval, respectively 1. Loaf volume of the bakes is corrected using flour protein as a covariate for the analysis.

Ö
Q
200
70
2
iho, 1999 and
ő
9
۲
ā
2
'n
듵
Fall
u
Idah
<u>0</u>
놡
ě
동
2
夏
₹
ਹ
ä
ے
ğ
:=
S
on te
۳
<u>×</u>
ĕ
ţ.
X
ш
က
0
Ω
a

)			יייין ייין יייין יייין יייין יייין יייין יייין יייין יייין יייין ייין יייין יייין ייין ייין ייין ייין ייין ייין יייי	41109 1441	2000	100 ZOOO.	
		1990	1999-2000			199	1998-2000	
	Grain	Test		Heading	Grain	Test		Heading
	yield	weight	Height	date	vieid	Weight	Height	date
Cultivar	bu/ac	nq/#	, '⊏	Julian	bu/ac	ng/#		Julian
Golden Spike	35	61	26	173	31	58	28	189
Gary	35	61	25	173				
Nuwest	32	90	27	174				
DW	35	61	24	172	28	59	23	186
Bonneville	40	62	30	175	36	61	30	188
Manning	39	61	26	169	32	58	24	182
Weston	29	62	56	171	. 29	90	30	185
Utah 100	36	99	29	171	31	57	28	183

Table 4. Summary of alkaline noodle color from 7 environments, southeastern Idaho, 1999 to 2000.

	Initia	al color at 0	hr	Change over 24 hr	Yellow at 24 hr
Cultivar	L*	a*	b*	L*	b*
Gary	86.9	-3.3	26.5	5.8	24.1
Eltan	87.3	-3.6 **	24.1 **	4.9	20.4 **
Manning	86.1 *	-3.0 **	24.7 *	6.9 *	24.2
Sprague	86.8	-3.5 **	23.4 **	6.7	18.9 **

^{*,**} Cultivars significantly different from Gary at the 95% and 99% confidence intervals, respectively

			ļ				
			1999	6f			
	TS .	Stripe	Stripe				
	rust,	šť.	rust,				
	Pullman	nan	Walla				
			Walla	Stripe n	Stripe rust, Mt. Vernon WA	rnon WA	
	% type	ype	% type		% type		
	_i 13-Jul	29-Jul	23-Jul	16-Apr	25-May	16-Jun	
Gary	olo	0 0	olo	아	olo	0 0	
Weston	2 8	2 8	2 5 to 8	양	5 2	40 2 to 8	
Bonneville	2 2 to 5	2 2 to 5	1 3	ᇮ	10 5 to 8	10 5 to 8 10 2 to 8	
Stephens	olo	00	olo	olo	30 2 to 5	30/2 to 5 40/2 to 8	

Table 6. Summary of Western Regional Yield Testing 1999-2000

	1999	2000	
	Western US	Western	
Cultivar	average	average	J
Ten.	pu/ac	bu/ac	
Gary	78.4	80.0	
Kharkov	56.5	59.8	
Wanser	67.1	96.6	
UT203032	75.5	75.0	

AGRICULTURAL MARKETING SERVICE	The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.	
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).	
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
University of Idaho	OR EXPERIMENTAL NUMBER ID0550	Gary
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)
Idaho Agricultural Experiment Station University of Idaho	208-885-7173	o. Fractande area codej
Moscow, ID 83844-2337	7. PVPO NUMBER 200	200152
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.		
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country X YES NO		
a. If original rights to variety were owned by individual(s), is (are) the original rights to variety were owned by a company(ies), is(are) the	O If no, give name of country original owner(s) a U.S. based company of the lift of the li	· · · · · · · · · · · · · · · · · · ·
 Additional explanation on ownership (if needed, use reverse for extra special) 		
Gary was developed under the direction for the University of Idaho using particular contracts intelled and property of the University of	ents belonging to the lecual property deve	e University of
EASE NOTE:	<u> </u>	
ant variety protection can be afforded only to owners (not licensees) who meet one	of the following criteria:	•
If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.		
If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.		
If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.		
e original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.		

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to compete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and merital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employeent opportunity employer.

STD-470-E (07-97) (Destroy previous editions).